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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/991,253	11/21/2001	Sugio Miyazawa	939 033	3003

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EXAMINER

DAY, MICHAEL HENRY

ART UNIT PAPER NUMBER

2879

DATE MAILED: 12/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/991,253

Applicant(s)

S. Miyazawa

Examiner

Michael Day

Art Unit

2879



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on _____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on Nov 21, 2001 is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 6, 7 20) ☐ Other: _____

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DETAILED ACTION

Drawings

1. Figure 5 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 does not include a traditional transitional phrase, such as, "comprising," "including," or the like. Consequently, the scope of the claim can not be determined. Additionally, the variable, "R" has not been defined. Here it is understood that the applicant is referring to a radius of curvature at a boundary between a barrel section and an electrode insertion section, or the like.

Claims 2 and 3 are rejected for depending from a rejected claim.

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Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for the purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language;

5. Referring to claim 1, Sugimoto et al. (U.S. patent No. 6,208,070) disclose a ceramic envelope (see FIG. 1, 2 ceramic discharge tube 1 including a barrel section and two smaller diameter electrode insertion sections (portions 12a, 12b) wherein a radius of curvature at a boundary between a barrel section and an electrode insertion section is between 0.01 and 3.0 mm. See FIG. 3, and Col. 4, lines 43-48, Note that the radius of curvature at a boundary between a barrel section and an electrode insertion section is about E or 1.6 mm.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 2, and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto et al. in view of Heytmeijer et al. and further evidenced by Oda et al.

Referring to claims 2 and 3, Sugimoto et al. (U.S. patent No. 6,208,070) disclose a ceramic envelope of claim 1. Sugimoto et al. do not disclose a ceramic envelope wherein the surface roughness is between 0.01 and 0.4 microns. Heytmeijer et al. disclose a ceramic envelope of alumina having 0.06% MgO (see col. 3, lines 50-60) with a polished finish (see col. 2, lines 29-34) of fine alumina of average particle size of about 0.3 micron (see col. 5, lines 50-54) providing improved translucence. Heytmeijer et al. are silent as to the surface roughness, however, it is the position of the examiner that the surface resulting from alumina of average particle size of about 0.3 micron is inherently somewhat less than the average particle size of about 0.3 micron, as evidenced by Oda et al. See abstract. It would have been obvious to make the envelope, as disclosed by Sugimoto et al., by the process, as disclosed by Heytmeijer et al., for improved translucence.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

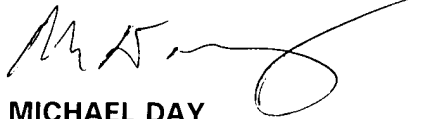
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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Day whose telephone number is 703/305-4941. The examiner can normally be reached on Monday-Friday, from 8:00 A.M. to 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel, can be reached by phoning 703/305-4794. The Fax phone number is 703/308-7382.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is 703/308-0956.

December 16, 2002

A handwritten signature in black ink, appearing to read 'M. Day', with a long horizontal flourish extending to the right.

**MICHAEL DAY
PRIMARY EXAMINER
GROUP 2870**